

ABSTRACT

METHOD FOR GRAFTING A FLUORINATED POLYMER AND MULTILAYER STRUCTURES COMPRISING SAID GRAFTED POLYMER

The present invention relates to a method for the radiation grafting of a compound that can be grafted onto a fluoropolymer, so as to prevent destabilization of the fluoropolymer, comprising the following steps:

a) the fluoropolymer is melt-blended with a graftable compound;

b) the blend obtained at a) is formed into films, sheets, granules or powder;

c) the products from step b) are subjected to photon (γ) or electron (β) irradiation with a dose of between 0.5 and 15 Mrad; and

d) optionally, the products from step c) are subjected to a washing and/or a degassing operation, and in which a stabilizer is blended into the fluoropolymer.

The stabilizer may be an antioxidant, a graftable metal salt or else a combination of the two.

The invention also relates to structures comprising at least one layer of these blends and at least one layer of another material.

The invention also relates to the use of these structures in order to obtain a barrier effect.

These structures form a barrier to many fluids and in particular to petrol and to air-conditioning fluids.

These structures may be made in the form of bottles, tanks, containers, pipes, hoses and receptacles of all kinds. They may also be converted into films from which packaging is made.